MT. KEARSAGE, FROM THE HEAD OF COPPER CREEK.

## A TRIP ABOUT THE HEADWATERS OF THE SOUTH AND MIDDLE FORKS OF KING'S RIVER.

BOLTON COIT BROWN.

One morning, near the end of July, I left camp at the head of King's River Cañon, and, with my few remaining rations packed upon a little black mule, went zigzag up the dusty trail to the left of Copper Creek. By eleven o'clock I reached Robert Woods' sheep corral, from whence Mt. Brewer loomed up so majestically that I decided to camp and devote the afternoon to drawing it. Next morning, notwithstanding that I had carefully hobbled him, the mule was gone, and that so effectually, that it was three hours late before we finally got started. Then I mistook the directions that had been given me, turned off the trail and headed straight up to the left, in a wild attempt to climb directly over that wall of the cañon, putting in three more hours of hard work before I became assured of my mistake. But, at last, I backed down, crossed the bottom of the gorge, and climbed a little ridge just beyond, where, running along its top, was the trail-obvious to man and A mile farther up, while Jack paused for breath, I made the opposite sketch of what I took to be Mt. Kearsage.

Late in the afternoon we got up to the pass over the left wall at the head of Copper Creek, where the elevation seemed about 10,000 feet; the wind blew cold, and the last of the trees were still in the company of snow-banks. I camped on the very crest just beside the trail in a little velvety meadow, and, putting a pail of snow to melt, for there was no water, I sat on the edge and hung my feet over, while I made still another drawing of Mt. Brewer and his neighbors.

The view is a grand panorama of all the mountains from the Kaweahs to Kearsage; and over all the central portion, where Mt. Brewer dominates, there towered and slowly and silently boiled and drifted, one vast cumulus cloud. Its height was stupendous; it seemed to reach miles straight up into the sky. From its flat base, just combing itself among the tops of the peaks, to its highest battlement, must have been 20,000 feet.

Beyond this pass the trail drops over a rough ledge down into the wide, desolate granite basin from which it takes its name—the Granite Basin Trail. There are two or three lakes, and numberless little pools and rivulets of most crystal-clear water between emerald beds of close turf, all starry with wee fragrant white violets. One follows, in a general way, the base of the right (eastern) wall, meandering about among the few trees and the very many rocks. The trail is rather blind in places, and useless besides, so that the best way would be to travel straight for the lowest notch in the wall to the northwest, where the trail again becomes actual and useful.

At midday we climbed out over this pass and rested on the summit, the divide between the South and Middle Forks. Passing over slushy snowbanks, deep mud and wet rock, the trail led down a small cañon, skirting, one after another, lush green meadows cut into strange geographies by the stream's meanderings. At one place I tried to get Jack to go across the stream, and a difference in our opinions resulted in his collapsing in two feet of water. Whereupon, I was compelled to frustrate his obvious attempt at suicide by holding his head out of water with

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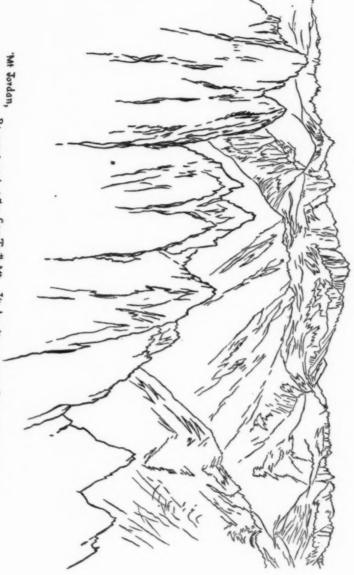
one hand, while with the other I cut off and threw ashore the dripping pack. Things were in a bad way, and I knew by the look in his eye that Jack fondly expected we should have to stay there until the next morning. But there was very shortly an interesting array of wet clothes, blankets, groceries and sketches spread on the top of a big flat rock to dry in the sun and wind; and then, by the help of a rousing fire, I hurried things so successfully that, in about two hours, the mule, much to his disgust, was again packed and footing his reluctant way toward other adventures.

About two miles below the pass we spent the night. A short distance beyond our camping-place the trail bears to the right and along the eastern face of the cañon wall. After a little it bears still further to the right, then crosses a stream and turns back to the left again, in this way getting around an inaccessible fork of the main cañon. Immediately after crossing the stream just mentioned, you pass through a beautiful meadow with timothy grass in it, and a sheep corral at its lower end. From the corral you work to the right, up a bare stony slope, and come out upon a wide park-like plateau covered with pines. When you have crossed and arrived at the northern edge of this, you get a fine view of the main crest to the northeast, and of all the mountains beyond the Middle Fork, clear round to the blue foothills in the west. From this table-land the trail zigzags sharply down several thousand feet, reaching the Middle Fork about a mile below the mouth of Goddard Creek.

Here I spent several days, exploring, climbing, and sketching. The finest thing in the vicinity is Mt. Woodworth, situated in the crotch between Goddard Creek and the river. Against the herders' advice, I went straight up the southwestern spur, and above this followed along the base of the jagged spires that bound the mountain's southern face. The summit, which seemed about 12,000 feet

high, I reached at noon, after a most delightful ascent. I saw the crest of Mt. Goddard, and from it, sweeping round to the east, a wilderness of savage ridges overtopped at the sky-line by the awful crags of the Saw-Tooth Mountains. This region is undoubtedly the wildest and roughest part of the whole Sierra Nevada range. From all accounts, it has never been explored. Even the sheepmen do not go there, because there is no grass. I made a drawing of the highest peak in the main crest, and, in honor of Dr. Jordan, called it Mt. Jordan. Upon seeing this drawing, Mr. Le Conte recognized the peak, and said that observations upon it from other high points showed it to be over 14,000 feet high.

The descent-along the eastern edge of the southern face of the mountain-was even more enchanting than the ascent. From the summit pinnacle, in the cracks of which I lay for two hours, sketching, and munching bread, and which I believe I was the first to visit, I scrambled a hundred yards to the east, and treated myself to a good shuddering look over the edge into the abysses between the terrible black spires that make that side of the mountain top. Some of these appear in the Mt. Jordan drawing. The rock does not seem to be granite, but breaks in flattish fragments, that ring muscally when struck. Then came a long run down the steep slope of broken rock, followed by a glorious standing slide of half a mile on an unbroken ribbon of snow not fifty feet wide. When the snow became water, I took to the bank, and walked among the dainty flowers springing from the ruddy soil-the moss-pink, the Mariposa lily, and many others whose names I do not know, though they were not the less beautiful for that. A little farther down, the sparse and polished shafts of the grasses, bent with the weight of their plumy heads, make a misty veil, through which the bright castilleja gleams like a flame. Here and there, over the steep concave of the



Principal peak of the Saw Tooth Mts. Its location on the Sierra Club map is about .. the intersetion of lines drawn north from Analise Valley and west from the Ovens River Smelling Works.

Drawn from the summit of Mt Woodworth, by B. C. Brown, Aug. 1848

I de . t t o e

sun-warmed mountain side, stand storm-scarred junipers; their mighty trunks bright cinnamon-red, and six to seven feet through, set their huge talons immovably into the rock crevices, and hold up in the afternoon sunshine dense masses of sweet-smelling foliage, whispering gently in the mountain airs. Such trees, such rocks, such flowers, such vasty gulfs of air above, below, and around; such wealth of warm sunshine; such a paradise of sunny solitude sweeping aloft far into the sky's deepest blue-these and the intoxication of the air at ten thousand feet, the sublime beauty of the remote ranges of snowy peaks, the silver thread of the river winding through the blue haze thousands of feet below - these, and many other sweet influences, stirred in me a deeper sense of the heavenliness of the mountains and a deeper joy in them than was ever mine before.

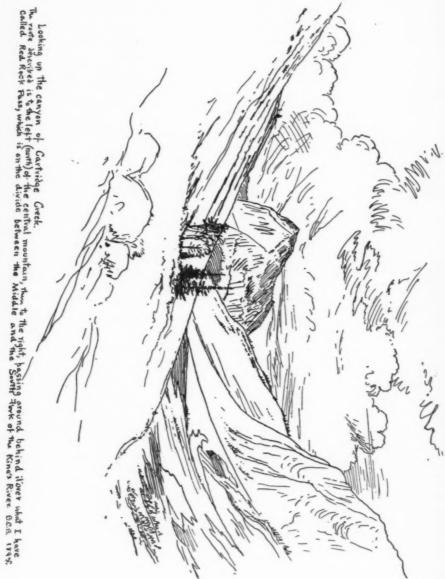
All the next day I tried to get Jack up to these heavenly highlands to camp there, but in vain. We missed our dinners, got wet in a thunder-shower, and had to return at last. Jack had another adventure, in rolling down a steep, dusty shute. I held to his rope, and did my best to stop him, but he was too heavy,-over and over he went, all curled up to facilitate the process,-I think he liked it, and cheerfully would have gone this way to the foot of the mountain. I jumped along, and, as we passed a little pine, I swerved and brought the rope across it. But it was too small,-it checked things an instant, then bent, slid up under my arm, I hung on like grim death, but under it slipped; and over and over, Jack continued to roll. But I did get him stopped at last, and then came an interesting time trying to remove the pack so gently as not to start him again. This finally accomplished, I got him on his feet-he turned two somersaults in the act-and, by digging tracks with my own heels for him to step in, worked him out of the shute into the surrounding thicket of scrubby manzanita and repacked

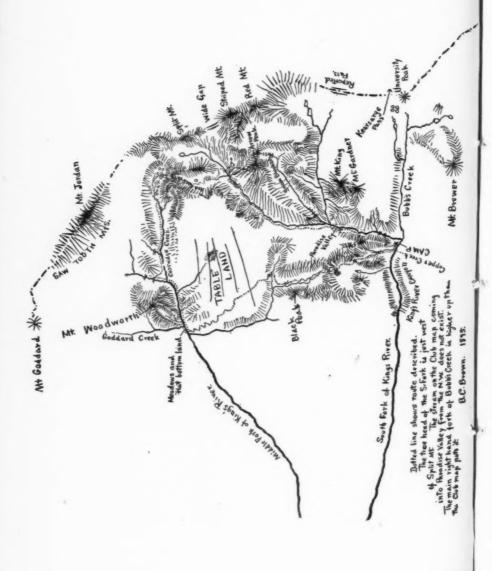
him. And lashing a demoralized heterogenous pack upon a monumentally stupid mule, airily poised upon a slope like a Gothic roof, amidst a perfect mat of stiff bushes that catch every rope every time you throw it,—this, gentle reader, tries the temper of the best of men. Thereafter I devoted my exclusive attention to getting down to the river before dark, and succeeded in doing it.

Along the south bank of the river is a trail, which, after a day's rest, I set out to follow. Having tramped about five miles and crossed one or two minor creeks, I reached the mouth of Cartridge Creek-a large tributary coming down from the east. It is bridged by a log, a few rods beyond which is a recently built but untenanted miner's cabin. Passing this, the trail turns to the right and ascends the side of the cañon; there I left it, and worked off to the left parallel to the river, intending to follow it as far as possible towards the Saw-Tooth Mountains. But within a mile the country became quite impassable for the animal, whereupon I faced about and started upwards to the left to find, if it existed, the trail I had abandoned; or, failing this, to follow up the northern bank of Cartridge Creek without it. Presently I came upon and explored the deserted mine that belonged to the cabin below, and discovered that it was to this, and not elsewhere, that the abandoned trail led. From the mine a scramble down the slope to the right brought me again to Cartridge Creek. Up we clambered-the mule snatching bits of weeds and I chewing the inner bark of the pine to keep down hunger. There were just enough monuments and old blazes to show that some one had been that way before. Pasture, there was none until near nightfall, when, far up the stony slope to the left, there appeared a small patch of green color. Unloading the outfit beneath two gigantic spruce trees, I led Jack up to the green patch, and miserably insufficient we found it. But it was better than rocks, so I left him there.

Next morning, after an hour's travel, we passed a sheep corral; and a mile or two above it a considerable stream coming in from the left,-tumbling down the cliff in a fine waterfall. Beyond this tributary another comes down from the right, and just here is a large waterfall-a thundering cataract, fifty or a hundred feet high and very picturesque. The ascent is to the left of this. By following a herder's tracks I found the one spot where an animal could be gotten up. (I digress to remark that Jack was a mighty poor mountain mule. Of course he would say that I was a mighty poor mountain muleteer,-and while admitting some lack in mule technique, yet it certainly remains true that Jack would not attempt many places where I tried to lead him, which he could certainly have done; and would himself attempt, and fail at, places where I should never have dreamed of leading anything less than a South American condor.) When about half way up the pass to the left of the falls, over he went, turning two complete back somersaults that landed him in a gracefully recumbent and pathetically human attitude. This necessitated his being unpacked,-for once down he is immovable until the pack is off-and my carrying the load myself to the flat above. Afterwards, I built a series of steps and laboriously coaxed him up them one at a time. A mile above the falls we halted for rest and a bite, and I made the opposite sketch of the view up the cañon.

About five o'clock I camped for the night upon a charming knoll of shining granite, glacier-polished, — just across the stream from which grew plenty of feed. The timber line was near, and sweeping snow-fields patched the rocky walls of the mountains about and even below my little encampment. From some scrubby mountain pines near by I got bristly boughs—which Jack dragged to where I wanted them—and I built a good bed, resting, like an eagle's nest, upon the bare polished granite. Next came





the cheery fire; and then, after a bath in the icy stream, I was prepared to enjoy the situation to the full, basking in the sun and studying the view down the caffon; for, softened as it was into a sort of mountain dreamland—a vision of the Delectable Mountains—in the warm haze of the afternoon sunshine, it was as grand and as beautiful a scene as ever my eyes beheld.

There being now no longer any sign of trail or track, I set off the next morning before sunrise, without the mule, making a wide scout, to see what came next. After climbing up beyond a long series of cascades, I ascended the central peak,—shown in the sketch,—for an outlook. Even from there the way was doubtful, and I came down the southern side, and went some way up that gorge before I found out that it was a pocket. Turning, I came back along the northern edge of a fine, deep lake, whose blue expanse reflected still the dazzling snow that rimmed its other side. Just below the outlet appeared old traces of mules, upon which hint I began to work out a route back to camp, and in a couple of hours had a carefully picked and monumented trail all the way.

About noon Jack and I moved on again. We crossed the creek, passed up the southern side some distance, and then recrossed just above a little grove of pines, one of the trunks of which bears upon its eastern side the letters P. R.—Pretty Rough, I thought. With only one or two serious rows in getting Jack over my trail, I reached the edge of the big basin that lies to the north, and swings round to the east, of the central peak in the sketch. Pushing on through this, among innumerable pools, over polished rock, velvet grass patches, dried mud, wet mud and snow-banks, we got well up towards the eastern edge before evening. The spot was ringed about with a seemingly impassable wall of granite mountains, and it began to look as though I had got to the end of my travels in that direc-

The main right hand fork of Bubbi Greek is higher up then

tion. There was no timber, and no grass that a mule could bite close enough to feed upon. Leaving Jack amidst a wilderness of huge boulders and rock ledges, I ran off to look for a pass, feed, a camping spot, or anything else of interest. Away to the eastward there seemed a motion among the boulders, -looking sharply, there was no mistaking-it was a man! leaping along over the rocks. ran to him, and found a French shepherd sitting on a rock, with his stick and his dog, watching his sheep. I had already made up my mind to try a certain place in the southern wall for a way over, and was glad to have my judgment confirmed by his pointing to the same spot as a pass. It can be distinguished by the slightly reddish stain in the rocks near its top. I now hunted up the mule and led him back a mile or more to feed and wood, where we camped for the night; and a freezing cold night it was.

Before the sun was three hours high on the following morning we had gotten up the impossible-looking pass and paused in the snowy saddle above,—some 11,000 feet high. I called it Red Pass; and it is the divide between the basins of the South and Middle Forks. Leaving the mule, I clambered out to the left up the edge of the crest we were upon to where it joins another in a small peak. This peak proved to be part of the first ridge, to the west of the main crest.

Turning now to the south, along the edge of this sharp ridge, I headed for a fine spiry peak that it rose into within half a mile of where I was. Soon the steepness and narrowness forced me to drop down to the right—the left was sheer precipice—cross the curiously fluted western face and make the ascent by the southern spur. This I succeeded in accomplishing, but only after a few minutes of the most aerial and dangerous climbing that I ever happened to attempt.

To the east-at the bottom of a thousand-foot preci-

pice-lay the basin of lakes and snow-banks in which the north prong of the South Fork takes its rise. Within sight I counted twenty-six blue lakes. After building a small monument and leaving a note, I began to climb I dreaded, yet I would not have missed it for any-The problem was to get down the crevices between huge, almost vertical, prisms of granite. Facing outward, and thus necessarily looking into the awful gulf of air above which I was poised, I pressed the opposite walls with my hands, and so, inch by inch, let myself down. Sometimes it was not a crevice,-but, worse yet, an edge that must be descended. The weather-worn rocks are very rough, and studded with bits of sharp crystals and the projecting edges of little lines of quartz,-and those formed the steps in my ladder. I suppose an inch or two of solid rock is as safe as a yard or two-but somehow you don't feel just the same about it.

After an absence of three hours, I again felt the familiar backward tug of Jack at the end of his lead-rope, as we took up what they call in South Africa the "spoor" of the last herder that had gone over Red Pass, and wound along down the rocks.

In the middle of the afternoon we rested half an hour in the green grass on the margin of a beautiful lake with a charming little islet in it. An hour after leaving this I made the accompanying sketch of the noble peak which we had been working toward since leaving the pass. By nightfall, after a long day, full of the things delightful to the heart of the true mountaineer, we camped by a boggy meadow on the river where there was a little stockade and some herders' outfits.

All day I had watched this big mountain, so grandly simple and typical in form, that now loomed directly above me to the southwest. Of course, I wanted to climb it, but my feet were almost literally on the ground, rations were



low and the future unknown. It worried me a good deal, but just before falling asleep I decided that it would be foolish to attempt it, and that I would not. In the night I awoke and saw its snowy slopes gleaming serenely in the moonlight. At daybreak it was still there-it called to me at breakfast, its rocky pinnacles beckoned me, its soaring summit challenged me. I could stand it no longer and hurriedly swallowing the last of my coffee, I threw prudence to the winds, flung some sketching materials and things in the knapsack, stuck the ice-axe in my belt and was away through the pines and boulders, over the roaring stream, through labyrinths of fallen timber and dashing water and nodding, many-colored columbine, almost on the run for sheer joy of that mountain and the delight of climbing up There seemed just three possibilities of reaching the top-which were, by its three main spurs that unite at its apex and spread out to form its base. In the drawing they are the right hand outline of the mountain, its left hand outline and the central angle. All are very steep and in parts a mere row of balanced pinnacles dividing two precipices. I chose the central one and went straight up it from base to crest—an exceedingly simple ascent, yet very good exercise and most of it serious climbing. More than once the ridge narrowed to an actual edge which I had to straddle and hitch along. With the strong handle of the ice-axe, made of a wagon-spoke, I tilted off its poise a two-ton cube of rock, - Crunch! Crash! Boom! - the awful thundrous roaring down the horrid throat of the crevice-a far, growling rattle and a smell of brimstone;-it was a huge A sharp rock cut the bare sole of my foot, but Twice I stopped to sketch-once making the not deeply. one here given as Wide Gap. About midday I clambered up the last and summit rock-some 13,000 feet high-and swept my eyes around. It was perfect. The whole Sierra Nevada range seemed spread before me, a sea of wildest



9.C.B. 1845. ("Wide Rits," on map.) Oap in main creef, looking north west from near the summit of Arrew Bak.

mountain crests, splashed with snow, basking in the clear sunshine and veiled in a tender blue haze. A sense of profound peace came over me. It was so still I heard only the ringing in my ears.

To the northeast above the head of the caffon (the left prong of the South Fork, which I should call the real South Fork) was a wide opening in the main crest, -an interval two or three miles long with a bare sweeping surface broad enough to build a city on. I called it Wide Gap. It seemed an obvious, and on the west, at least, an easily reached pass. But of its other side I cannot speak, for lack of food and shoes prevented my crossing it. To the north of this gap the crest rises into a huge mountain with a double summit-seen at the left in the sketch-which I called Split Mountain. Corresponding to this on the south it throws up to a vast height a ragged mass that divides broadly into three main parts. That nearest the pass is strikingly barred across its steep craggy summit with light streaks. As this is an unusually marked case of this peculiarity and as it seems well occasionally to have a mountain whose name bears some relation to its visible character, I called it Striped Mountain. The next summit south of this is higher yet and remarkable for being entirely of a deep rusty-red color. I therefore called it Red Mountain. The spur running from between these two out to the west is much paler in color-suggesting ashes-and I called it White Mountain. From Arrow Peak there were thirty-two blue lakes in sight. It was from here that I made the sketch of Mt. King that appeared in the January BULLETIN.

In descending, I followed the southern surface of the eastern spur in search of a rumored pass through that wall; and within a mile found signs where sheep had sometime been driven over. But the actual opening in the rocky barrier-a few yards wide-was blocked by fifteen feet of snow,

with an almost vertical face on the side where I must approach it with the mule. Had I got over this pass I should have gone right down the southern side of these mountains, and landed at or very near the head of Paradise Valley. As it was, however, I at once abandoned all idea of getting Jack over that ridge, and descended to the camp. Arriving some time before dark, I packed up and moved a couple of miles down the gorge before night,—this to avoid the mosquitoes, which had made the first night a misery.

The next day was given to a flying trip, without the mule, down the cañon several miles, to look for a route that way out into Paradise Valley, from which there exists a trail to King's River Cañon. The place was frightfully rough, but it was that or nothing, for rations were already too low to permit of a return as I had come. In the morning, then, we set out early, and, by unceasing industry until evening, and at expense of much skin from poor Jack's legs, got over perhaps three miles. The next day was even worse; we made less distance and the mule sustained several rolling I could not help these, much as I regretted them. I regretted them, because they hurt the mule somewhat, and racked his constitution-also that of the pack,-and because always I had to unpack him before he would try to get up. He had only a hundred pounds to start with, and to-day I carried twenty-five of that on my own back. Once, as we picked our way along the top of the stream-bank across a kind of semi-vertical bog, his footing slid from under him and he rolled toward the precipice. As he started, I instinctively freed myself from the lead-rope and flung it after him. Over the edge he went-turning a complete somersault in the air and striking on his back on the smooth bedrock in the edge of the stream. He fell ten or twenty feet, and should have been killed; yet, strange to say, when I removed the pack, and applied the proper means, he scrambled to his feet,

seemingly quite as much amazed as I was at his continued existence.

All along here the water shoots swiftly down over polished rocks. As it was necessary to get Jack over, and I had never tried just such a crossing, I first began to experiment upon the force of the water in the glassy slide by stepping out into it. It spouted about my legs, and then, before I knew it, began to shove me down stream—in fact, to wash me away! I could not turn round, and so, in far less time than it takes to tell it, I did the only thing left to do—make a rush straight across—dashing through the swiftest of it, and so out safe on the other side. It was the most hair-raising experience of the whole summer, and I confess that for a minute thereafter my nerves felt queer. I decidedly declined to go back in the same way, but went far above and crossed in a quieter spot.

For a long time lack stood in the margin, with a waterfountain spouting from each leg-stubbornly refusing to go across; but in the end, by much yelling and throwing of things at him, he was persuaded, and went. Again crossing far above, I returned and escorted him several hundred yards down the river, sometimes along its edge and sometimes mid-thigh-deep in the icy water, exploring among the boulders with my feet from one foaming pool to another. Returning then, I ascended and brought down the pack. Parts of that cañon I traversed seven times. As I came staggering back under a hundred pounds of dripping paraphernalia, Jack's nose was deep in a bunch of green grass. Perhaps I imagined it, but there seemed a gleam of humor in his patient eye as I labored by over the rocks, looking for a place where it would be possible again to lead a packed mule.

And so, in such ways, we fared on,—and at night some miles of this sort of going were still between us and Paradise Valley. In the morning the mule was quite lame, food low, and traveling next to impossible. I went off alone, and tramped and studied that cañon from wall to wall for hours, finally deciding to try to pass along the very base of the cliffs at the top of the talus, several hundred feet above the stream. Carefully I chose every step of the way, and marked it all with stones,—that is, the three-quarters of a mile that I explored. Then I packed the animal and started him, but it was no go. We had not made a hundred yards when he keeled over, and began turning back somersaults down the slope. That settled his fate. I cut off the load, got him on his feet, and headed back towards the grass. Opening up the pack I selected what I thought I could carry, cut some harness from the pack-saddle, and loaded myself for a forced march to my old camp in King's River Cañon.

Being in perfect training I made excellent time, and by one o'clock had struggled through several miles of rocks and manzanita jungle and reached the head of Paradise Valley. Traversing this with only a few moments' stop to eat dried peaches and granula, I climbed a couple of thousand feet over the western wall, made a mistake at the crest, and rushed off two miles northward and up several hundred feet when I should not, discovered the error, and turned and ran diagonally down across the western face of the spur and reached Copper Creek, below Woods' corral, shortly before sunset. Thence, by trail, I plunged down two or three thousand feet, to the floor of King's River Cafion, and then a mile up it to my old camp, where I had an extra horse and a cache of food—arriving just at dark, after an absence of more than two weeks.

I never did a harder day's work than that last. After working many hours to get the mule out—then at eleven I started with a thirty-pound load and went as fast as I could clamber and trot for eight hours. I ate a light supper and lay down. At dawn, arose and cooked beans. At nine I

ate them. Then I went two miles after my horse. At ten I had a bath. I put on a pair of rubber-soled tennis shoes, and by twelve o'clock had the horse packed and was headed for Fresno,—a hundred miles away. Two nights of the following four I was prevented from getting much sleep, yet in spite of this, such is the marvelous effect of six weeks in the High Sierra, we reached the '76 Canal at five o'clock of the third day—having come since morning thirty miles without strain,—and at eleven o'clock the next forenoon we walked into Fresno. I was shockingly ragged and sunburned and dusty, but I had had a glorious vacation, had grown ten years younger and "felt like a fighting-cock"—as sporty men say.

## KNAPSACK TOURS IN THE SIERRA.

By C. B. BRADLEY.

The camping-trip in gypsy fashion is one of the most firmly established institutions of our Pacific Coast. It rests upon the traditions of our early immigrants. It is fostered by the peculiar nature of our climate and seasons. It is often the only means by which the fastnesses of our mountains may be reached and explored. And vet, its pleasures and profits are often purchased at the cost of so much labor, anxiety, and positive discomfort, as to raise the question, Is there no alternative? Elsewhere-in the White Mountains and the Adriondacks, in England, Scotland, and Switzerland—the pedestrian tour is deservedly popular, and largely takes the place of our western camping-trip. Two conditions, however, are essential to its success: - wellmarked routes, and the assurance of reaching each night some good, comfortable harborage, Taking the Sierra region generally, it is needless to say that these conditions are not often present. Vast tracts are as yet unmapped; and there the precarious hospitality of the chance cabin or of the herders' camp would be the wayfarer's sole resourcea thing to be sought only in extremis, and not sure to be found, even then. Still the old order changes, though it be but slowly; and is sure to change faster, year by year. Already, in some portions of the northern and central Sierra, the conditions are such that knapsack-tours of considerable extent may be made through regions of great scenic beauty and interest. It needs only that the facts be generally known, that the pilgrimage be once fairly started,

and a steady enlargement of the area thus accessible is at once assured, as well as a steady increase in the comforts and accommodations to be found by the way.

It is not the writer's thought that the hardy climbers and explorers of the Sierra Club may thus be beguiled to forsake their high endeavors for any tamer recreation. But many others there doubtless are among its members, less supremely endowed with strength and ambition,-persons who can enjoy an exhilarating walk or climb, even if there be no great hardship or danger involved; who can sometimes forego the goodly fellowship of the pack-mule; who can, without utter loss of self-respect, look forward to a good dinner and bed at the end of each day's tramp; who feel the charm and inspiration of noble scenery no less because it is not quite inaccessible to all others. It is in the interest of this latter class that the following itineraries are given; not because of the intrinsic value of these particular trips, but as specimens of what may be easily accomplished, even under existing conditions, by any fair walker who takes delight in such free ranging.

A word regarding the equipment for such a trip may not be altogether amiss. It should, of course, be the simplest possible. A complete change of undergarments, with extra handkerchiefs and socks, the indispensables of the toilet, a good map, if such is procurable,\* a pocket compass, an alp-stock, if snow is to be traversed, and the daily lunch, are the only things absolutely necessary. A field-glass, though easily carried, is not often of much service; and the same is true of fishing-tackle. But a gun is an absolute encumbrance in most of the summit region, and especially so in the portions traversed during a trip of this

<sup>\*</sup> The atlas sheets of the U. S. Geological Survey, already issued, cover nearly all the ground traversed during both the trips described below. For the trip of this last summer, sections of suitable size for pocket carriage were cut from the Truckee, Pyramid Peak, Markleeville, and Big Trees sheets. The map thus formed was invaluable, being accurate in all important matters, so far as we tested it.

sort. In the writer's experience, the most convenient way of carrying the light pack is in a simple sack of brown "jeans," 14x18 inches, gathered and tied at the mouth, and slung to the shoulders in Bavarian fashion, leaving both hands free.

The trip whose itinerary is here given first, was made by Professors Frederick Slate, Henry Senger, and the writer, in the summer of 1895. The region traversed was the high and broken country along the main Sierra divide, and within a short distance of it on either side, from Donner Peak to the Dardanelles-among the utmost springs and sources of its great rivers; the Yuba, the American, the Truckee, the Carson, the Mokelumne, and the Stanislaus. The course may be described as a series of zigzags, crossing in shoe-string fashion, either the main ridge of the Sierra itself, or some of its lofty spurs, on almost every The distance traveled - not counting day's march. detours,-from the Summit Hotel, on the Central Pacific Railroad, to the Calaveras Big Trees, was about 140 miles. The entire trip occupied seventeen days, of which, however, only eleven were actually spent on the march. The stages were as follows:

r. Summit Hotel to Deer Park Inn—thirteen miles. Route: The Soda Springs trail and the summit ridge to the eastern shoulder of Tinker's Knob; thence a slant along the hill-side, striking into the Squaw Valley trail a mile or more west of the pass at the head of the American River. Beyond the pass the trail is, at points, obscure. After a few zigzags it swings sharply to the left, on a granite ledge at the foot of cliffs; then crosses a little stream, and keeping fairly well up along the hillside, it drops finally to the meadow, some half a mile below its head. Here, instead of following the wagon-road down Squaw Valley to the Truckee River and doubling back up Bear Creek—a detour of some six or seven miles,—we crossed the meadow,

climbed the steep divide between the two streams, and struck into the Bear Creek road a mile or less below the hotel. An exhilarating day on the heights, with wide prospect east, west, and north, and specially fine near views of the imposing mountain masses about the head of the American River.

- 2. Deer Park Inn to McKinney's, on Lake Tahoe—twelve miles: Route: cattle-trail up Bear Creek, swinging southward through upland meadows to a low pass under the eastern spur of Ward's Peak. A fine view is here to be had of the cirque of mountains at the head of Ward's Creek. The Old Hat, with oddly and tilted summit-crag, stands at the head of the valley to the west, while the Twin Peaks face you from the south. A good trail in the meadow below leads down the left bank of Ward's Creek to the lake; thence there is stage-road to McKinney's.
- 3. McKinney's to Rubicon Springs-nine miles; an easy morning's walk. Route: a wagon-road up McKinney Creek, climbing by easy grade to the divide at its head; then skirting in open country a chain of lakelets and meadows at the head of Miller's Creek; and emerging abruptly upon the brink of the tremendous granite trough, seventeen miles long, which forms the upper reach of the Rubicon River. At this point the wagon-road turns to the right, leaving Miller's Creek and doubling about a hill to secure a better grade; while a cut-off-an older roadstrikes steeply down into the cañon, following the creek at no great distance, and saving some two miles of walking. Most memorable was the sudden vision of that rock-ribbed chasm, with the stern array of granite pinnacles which crown its western wall from Pyramid Peak, on the extreme south, to Pilot Peak and Red Mountain, where the river finally breaks through, on the north. Rubicon Springs Hotel is out of the line of tourist travel, and seems frequented by few, save fishermen and hunters coming in by the George-

town road. Yet we found ourselves there quite as comfortable as at the pretentious lakeside resorts, and were much more considerately treated. It is well, however, to use considerable caution in drinking the water of the springs.

4. Rubicon Springs to Emerald Bay - thirteen miles. A long day's journey over a region of bare and trackless granite, ending with that anxious scramble over rock-talus and through thicket-mazes, which is known as the Emerald Bay trail; yet a day full of wonder and inspiration. The divide between the two points is, no doubt, occasionally reached by persons who climb from the one side or the other; but we could find no record or tradition of any one before ourselves who had actually made the entire trip. It is certainly not a tramp to be lightly undertaken by every one. Some experience in rock-climbing is essential to its accomplishment with any degree of comfort; and, in order to avoid the loss of valuable time out of a day sure to be quite full enough, it would be well if there were some previous acquaintance with both ends of the route. Our course was as follows: We kept the Georgetown road for about a mile from the hotel, crossing the river, and climbing the hill until the road turns abruptly to the right at the foot of a granite cliff. Turning here to the left, and following a blind trail along the strike of the ledges, we presently came out upon Rockbound Lake, a fine piece of water, with the clear-cut setting which its name suggests. Passing to the left of this lake and of another smaller one beyond it, we presently came upon the river again at a point where it makes a sweep eastward, directly across the valley, preparatory to its plunge, in a series of cascades, to the meadow below. Keeping still on the western side of the valley, and far enough up to avoid the tangle of the river-bottom, we crossed some two and a half miles further up, a considerable affluent from Tell's Peak on the west, and some half a mile beyond this, we crossed the main

Rubicon itself, where it comes racing down a deep notch in the bare granite floor. We were now abreast of a conspicuous rounded mountain mass and dome which dominates the eastern wall of the caffon. Turning about its southern base, we made our way for some three miles up a broad, open, side valley, leading off to the east, and reached the large lake at its head,-Glacier Lake, as we understand it has been christened by a party from Emerald Bay. A few rods beyond it is the rocky bar which forms the actual divide. From this point it is less than three miles in a direct line to Emerald Bay, but it was by far the roughest bit of country encountered during the whole trip. Directions here are not of much avail, but it may be well to remember not to follow the water-way between Bena and Eagle Lakes, which are next encountered, but to climb high up over the rocky bar to the left instead. Cross the creek finally to the right on a log, a little below Eagle Lake, and make your way down as you can, not crossing the stream again till the bay is reached.

5. Emerald Bay to Glen Alpine Springs, via the Crystal Peak Pass-nine miles. Retracing our route of the previous day, as far as Eagle Lake, we skirted its northern edge, and crossed the inlet just beyond. After a little rough clambering among the talus blocks, we turned up a tiny ravine leading out to the south, and, following it as it bore off to the west, we were presently on the broad, open divide at the head of the Emerald Bay and Cascade Lake basins. Keeping still to the west till we reached the stream which empties into Lake Bena, and following this up as it led southwards past some lakelets and fine cascades, we climbed at last out of the glacier-cirque at its head by way of a steep, rocky ridge between two large lakes. We were now on the northern wall of Glen Alpine, in the high saddle just to the east of Crystal Peak-Dick's Peak, as it is called on the map-and but a little way below its summit. The panorama

from this point is one of inexpressible sternness and sublimity. Some 1500 feet directly below us, on the south, was Half-Moon Bay. Launching ourselves down the snowslopes, and scrambling over the rocky talus, we soon reached its margin and the trail which leads to the springs.

- 6. Glen Alpine Springs to Slippery Ford—eleven miles. Route: the new Pyramid Peak trail as far as the top of the divide above Desolation Valley; thence nearly due south on the high, open ridge between that valley and the Echo Lake basin; striking a trail near an old cabin and corral, and following it over a high shoulder and down on the other side, between a great moraine wall on the west and a stream-gorge on the east till, at the bottom, you reach the South Fork of the American River and the Placerville stage-road. Thence it is some two miles down the road to the Slippery Ford House (Watson's). At this point two of the party were compelled to return to Berkeley, via Placerville, leaving the third to complete the journey alone.
- Slippery Ford to Silver Lake. A cross-country stretch of twelve miles, between the Placerville and the Amador roads. An old wagon-road, rapidly degenerating into a mere trail, leads south from Watson's bars, across Strawberry Ceeek, and up the long valley of the creek next west of Strawberry, to its head in a long, open meadow, reaching up to the very summit of the divide. Just beyond this, the ridge breaks off abruptly into the caffon of the Silver Fork. Directly opposite, on the other side, are the noble turrets and battlements of the bold lava crag known as Castle Point, with the huge bosses of the Spur rising above them to the left. There is no trail here, but the chasm must be crossed as best one can. The worst of the brush on the south face was avoided by scrambling down a dry torrent bed. The main stream was leaped where it came tumbling down the slope in a number of rocky channels. The steep wall on the other side was climbed by a slant westward, up

through the timber. On the top Van Winkle's trail was found, leading east up the ridge to the Amador road. Two miles down this road is the Silver Lake House,—by no means a desirable hostelry, but endurable, perhaps, for a single night, for the sake of a sail on the lovely lake and a view of the splendid sunset illumination and the alpine glow on the mountain peaks about it.

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Silver Lake to Kirkwood. A stroll of six miles up the road, retracing the last portion of the previous day's Kirkwood's is a postoffice and dairy ranch, furnishing good rough accommodation, if one is fortunate enough to escape quarters in the "corral." One should not fail to make from here the ascent of Round Top, the highest peak in all this neighborhood, and formerly a station of the U. S. Geodetic Survey, under Professor Davidson. The whole trip may easily be made on foot in a forenoon's time. Keep to the south of the Twin Lakes, and take the most direct cross-country line for the peak, working up into the high saddle just south of a remarkable volcanic crag which towers above you on your left. A mile beyond this you should strike the well-marked trail made by the surveyors. The name of Round Top is a complete misnomer for such a jagged knife-edge and crest. "Beecher's Ragged Edge," a name said to be current in the neighborhood, fits it far better. The view from the summit ranges over a vast territory, from Mt. Lola on the north to Mt. Conness on the south. But most imposing is the majestic array of snow peaks about the head of the Stanislaus and the Tuolumne Rivers.

9. Kirkwood's to the Blue Lakes — fifteen miles. Route: The Hope Valley road over the Carson Pass,\* and down the eastern slope to the foot of Red Lake, now scarcely

The tamarack tree on which Kit Carson carved his name, and the da'e of his arrival, stood until a few years ago by the roadside at the summit of the pass. The stump is still there, and the top lies on t e ground near by. But the lower section of the trunk, which carried the inscription, was cut out, it is said, by the surveyors, and sent to Washington for preservation.

more than a morass. Just beyond this, and within a few hundred yards of "Billy" Williams' house, take the road which turns off at right angles to the south. Following this for about two miles, leave it again where it swerves to the left, just after crossing the main creek in the meadow. From this point follow an old wagon track which continues the same southerly course up the eastern side of the valley, and leads over the high shoulder of the Round Top ridge, down into Summit Creek cañon beyond. There may be seen the wreckage which alone is left to mark the once famous mining town of Summit City. The trail is here completely lost in the flat, but may readily be picked up again on the other side, where it leads up to a low saddle to the southeast. Thence 'tis a mile to the head of the first lake, and three miles more along the eastern edges of both lakes to the lower dam and the lake-tenders' camp. The wagon road, which was left on the other side of the divide, conducts to this same place, but by a wide circuit to the east through Faith and Charity Valleys. The water company's house at the Blue Lakes is, in no sense, open to the public; but the kind fellows in charge seemed glad to do for the wayfarer whatever they could, welcoming him to share their table and quarters.

niles. A rough wagon road leads south, along the outlet of the lakes, to Deer Valley, and thence westward and southward around the nose of the ridge to Hermit Valley, near the head of the main Mokelumne River. It seemed a pity that the Hermit Valley House, situated as it is in the midst of magnificent scenery, with fine fishing and hunting near at hand, should, in late years, have been utterly abandoned. From this point the Silver City and Big Trees toll road leads out over the Stanislaus divide, and on to Bear Valley and Blood's.

11. Blood's to the Big Trees - twenty-three miles. A

swinging walk down the long slope which overlooks the Stanislaus River. A review of the mighty forest, whose cohorts and legions—from the thin skirmish line of junipers and tamaracks to the "Old Guard" of the sequoias—keep watch and ward in their appointed stations about the mountain fastness. Hail, and, alas, farewell! Shakemakers' camps were springing up like mushrooms on every little stream throughout the region, and the roads were ground to powder under the wheels which conveyed their spoil to the valleys below. The heavy siege-train of sawmills is steadily creeping up to support these pioneers of destruction. The end of the fair forest order is at hand.

The other trip may be much more briefly dismissed, since the region traversed is much more thickly settled, and the routes are more generally known. Indeed, the whole of it, save the first day's tramp and a small portion of the second and the third, was made over public roads. The trip was made by Professor F. Slate and the writer in the summer of 1887. It began at Bear Valley in Placer County, near Emigrant Gap, and ended at Greenville, in Indian Valley, Plumas County. The whole distance—about 100 miles—was made in six stretches, as follows:

r. Bear Valley to Fordyce Lake via the cañon of the South Yuba—fourteen miles. At that time the region was, for the most part, an untrodden wilderness. Within the last few years, however, a large reservoir has been made, filling all the first flat above the head of the South Yuba flume; and the lumber roads leading up the cañon would doubtless now facilitate the trip, while they would destroy much of its interest and charm. The water company's house at Fordyce Lake affords limited accommodation, but is the only available base for a number of fine excursions—to Old Man Mountain, Black Mountain ridge, Summit City,

English Mountain, and numerous smaller lakes in the vicinity. There is, moreover, a good cross-country tramp from Fordyce to Castle Peak and the Summit Hotel. The place might, of course, be much more easily reached from Cisco.

- Fordyce Lake to Webber Lake—twelve miles.
   Trail to Meadow Lake, and wagon-road thence east and north to Webber Lake.
- 3. Webber Lake to Yerrington's eighteen miles. Trail northward over the ridge to a saw-mill, and road thence through Sierraville and along the southern and western edges of the vast meadow, to a little farm-house where modest accommodations may be had.
- Yerrington's to Cromberg, by the Mohawk Valley twenty-three miles.
- Cromberg to Quincy—nineteen miles. From this place we made delightful excursions to Spanish Peak and to Mts. Cleremont and Hough.
- 6. Quincy to Greenville—twelve miles. At this point our actual tramping ended; for, after a few days of pleasuring in the neighborhood, a friend took us in his own conveyance to the Big Meadows, the proper goal of our trip. A stage running thence to Chico brings one into the world again.





THE SUMMIT OF MT. LE CONTE.
From a photograph by A. W. de la Cour Carroll, 1895.

## THE ASCENT OF MT. LECONTE.

By A. W. DE LA COUR CARROLL.

Mt. Le Conte is on the main crest of the Sierra, about three miles southeast of Mt. Whitney, and a little more than a mile north by west of Sheep Mountain. It forms one of the most striking points of the whole range, and the only one, except Whitney itself, having in its immediate vicinity sharply defined lesser peaks. Because of this fact, it has never been mistaken for any of the other mountains seen from the southern part of Owen's Valley—a group in which notable confusion has reigned.

Some time ago those residents of the Lone Pine district who are interested in the mountains decided upon naming this peak Le Conte, in honor of Professor Joseph Le Conte of the University of California. Following the usual order of things, it was then determined to make the ascent of the mountain and erect a monument, a feat which was undertaken by Mr. S. W. Austin and myself. Setting out on the 13th of August, 1895, we camped the first night at the forks of Tuttle Creek—the largest creek south of Lone Pine Creek—at an elevation of perhaps 6000 feet, and at a distance of about one mile from the mouth of the caffon, and nine miles from the town of Lone Pine. The south branch of Tuttle Creek leads up to Sheep Mountain, and the north branch to Le Conte.

At 6:30 A.M., August 14th, we started up the cañon, having picketed our horses at the junction of the forks—a fortunate thing as it turned out, for farther up we found very little feed and no sign of a trail. At 11 o'clock we

reached a beautiful flat thickly studded with pines; here we lunched. After a short rest, we pushed on to a second flat at timber line, elevation about 11,500 feet. From this we made the main ridge of the mountain at 4:50 P. M., where a conical mass of rock about 150 feet high and 250 feet in diameter forms the apex of Le Conte. After careful investigation we found this utterly impossible to climb. So we placed the monument on the north side of the dome where it can be easily seen by any one approaching the summit; and in a small can we put a photograph of the Professor, with the following memorandum:

"To-day, the 14th day of August, 1895, we, undersigned, hereby named this mountain Le Conte, in honor of the eminent geologist, Professor Joseph Le Conte.

"The bearing of other peaks from this point is as follows:

"Whitney is north 42° west.

"Williamson is north 17° west,

"Lone Pine Peak is east 31° north.

"A. W. DE LA COUR CARROLL, STAFFORD W. AUSTIN."

We estimated the height of the mountain at 14,300 feet. From the monument there is a most extensive view of the valley of Owen's River and of the region to the north; to the west, of Kern Valley, the Kaweah, and the divide between King's River and the Kern. The point where we stood seemed the apex of an angle whose sides were sharply defined ridges stretching away on the one side to Owen's Valley, and on the other to the Kern region.

The sun was setting as we took our last photograph, which was of Lone Pine Peak, and it was long after dark when we completed our hazardous and uncertain descent to camp.

SIERRA CLUB BULLETIN. VOL. I.

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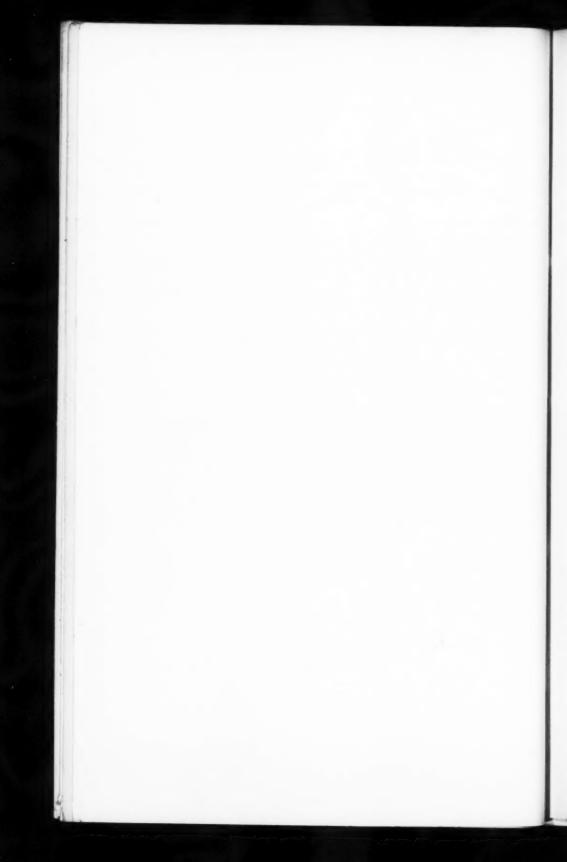
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LONE PINE PEAK FROM MT. LE CONTE.

From a photograph by A. W. de la Cour Carroll, 1895.



### THE DIAMOND HITCH.

By J. N. LE CONTE.

As there is nothing more necessary to the success as well as to the pleasure of a rough mountain expedition than a thoroughly reliable method of packing, I have prepared the following description and drawings of the Diamond Hitch, which may be of use to some members of the Sierra Club during their summer trips. I think any one who has had the slightest experience with pack-animals will have no trouble in following out the drawings alone, even without the description.

Fig. 1 represents a plan of the horse, or other packanimal, with the pack-saddle on his back. The packer stands on the left side, and throws the pack cinch on the ground underneath, as shown.

Next, he selects a portion of the rope near its other end (a. b. Fig. 2) and lays it through the cross-trees of the saddle, or if the saddle be covered by the pack, along the top of the pack, parallel with the animal's length. Care should be taken that the free end of the rope X is nearest the front of the saddle. The loop b. c. d. includes most of the pack rope, and its size depends upon the size of the pack.

He then gathers up a loop of the rope just above the cinch and throws it across the pack, taking care not to twist it. Passing around to the right side, our packer grasps the rope at 1 (Fig. 3) with his right hand and draws it towards him as shown by the arrow, while holding the hook H in his left. In this way the cinch is drawn up against the

animal's belly. The hook should be adjusted quite low down, as it is raised when the hitch is tightened. He then passes the hook through the loop, always placing the rope which leads back to the ring R between the hook and the animal's side. Any loose rope which may be found on the right side after this operation is then thrown back across the pack. Fig. 3 shows the hitch at this period.

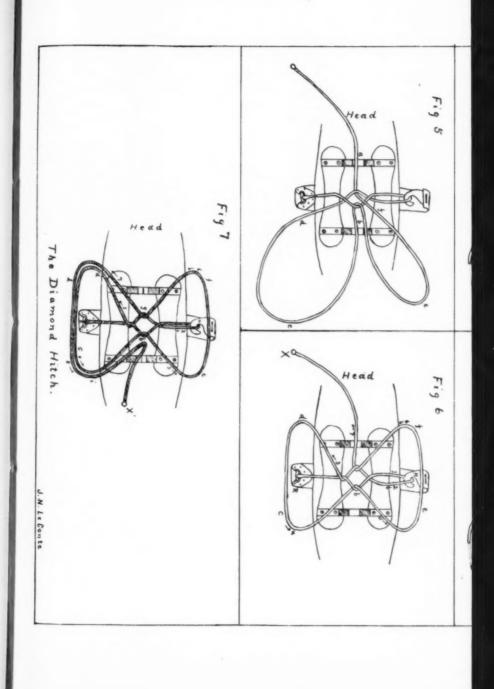
Passing again to the left side, the packer should now cross the two ropes of the last loop, pushing the rear rope forward underneath, and pulling the front one back over

the top of the other (Fig. 4).

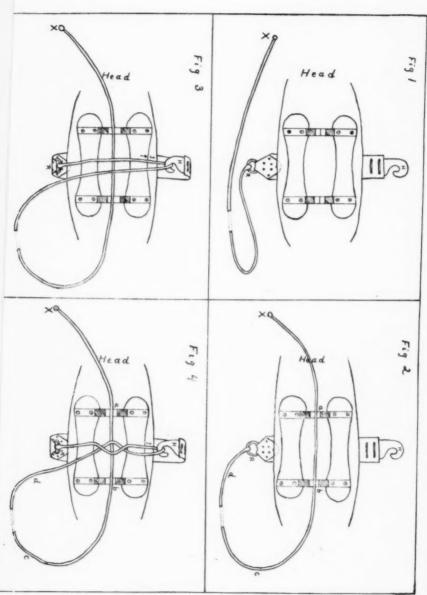
Through the diamond-shaped opening which is thus formed, he now grasps the straight portion of the rope lying underneath  $(a.\ b.\ \text{Fig.}\ 2)$ , and pulls it directly up, thus forming a third loop  $b.\ e.\ f.$  (Fig. 5), which is then thrown across the pack to the right side, and subsequently forms the support for the right bag. What remains of the loop  $b.\ c.\ d.$  (Fig. 2)—the portion marked by these same letters in Fig. 5—forms the support for the left bag.

If the loops have been drawn out to their proper size, a thing which can be judged by experience only, they will fit nicely around the bags, as shown in Fig. 6. If not of the right size, they must be adjusted by starting at 3 and passing along the rope to 4, 5, 6, and 7.

The hitch is next tightened. Our packer stands on the right side and draws the cinch up tight by pulling in the direction of the arrow at 2 (Fig. 6). When it is tight, he can hold the rope at 2 with his left hand, and, by reaching across the pack, take up the slack, by pulling it through the diamond at 3 with his right. The friction of the rope around the hook and through the diamond is usually sufficient to hold the hitch, while he passes around to the left, and still further tightens at 3. After fitting the loop around the left bag, he tightens at 4. The pulling at 3 and 4 should not be too hard, if the pack is piled up above the saddle;



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SIERRA CLUB BULLETIN, VOL. 1. Fig 2 PLATE XXXIV.



otherwise, the hitch is liable to be slipped forward on the animal's neck. The rope is then drawn very tight at 5. Pulling at 5 opens out the back of the diamond, and draws up the whole hitch. The loop is then fitted around the right bag, tightened at 6; and then again at 7 the rope is drawn as tight as possible, opening out the front of the diamond.

The loose end of the rope is now brought under the left bag forming the loop g. h. i. (Fig. 7), tightened at 8, and tied to the diamond at b. Fig. 7 shows the Diamond Hitch completed with the exception of the final tying at b. One man can put it on without the least trouble, though it is sometimes convenient to have a second man to take up the slack at 3, while the packer is pulling at 2. In the true Diamond Hitch the loose end X is never pulled through—in fact, it is never handled at all. The pack is made with equal ease, whether this end lies upon the ground or is tied about the animal's neck.

In conclusion, I would remind the packer that the hard pulling must be done at 2, 5, and 7, and that it is the opening out of the diamond which is most effective in tightening up the hitch.

### NOTES AND CORRESPONDENCE.

In addition to longer articles suitable for the main body of the magazine, the editor would be glad to receive brief memoranda of all noteworthy trips or explorations, together with brief comment and suggestion on any topics of general interest to the Club.

### NEW ROUTES WITHIN THE YOSEMITE NATIONAL PARK.

Lieutenant N. F. McClure reports the following new routes within the Yosemite National Park, discovered and traversed by him during the summer of 1895. Camping-places and good grass are to be found in abundance on all the routes. The best months for attempting them are August and September. The distinctive blaze of the trails made by the troops is a T. Along with his communication Lieutenant McClure sends two tracings from his most recent map of the Park. The one covers its northern half, and shows the detail of Routes 1 and 2. The other is of the southeastern quarter, and shows Routes 3 and 4. These tracings are too extensive to be reproduced here; but the Lieutenant wishes that they might be of service to any Club members who intend to explore those regions this summer. Any such may have them upon application to the Editor.

### FROM TUOLUMNE MEADOWS TO LAKE ELEANOR VIA STUB-BLEFIELD CAÑON.

The trail starts from Lambert's Soda Springs, and has been blazed to some extent by the United States troops. Delaney Creek is first reached, three-quarters of a mile to the northwest, and Dingley Creek, a mile and a quarter further on. Here the trail forks, the right hand trail leading to the summit of Mt. Conness. Take the left hand trail to the junction of Conness Creek and Alkali Creek, three miles to the west. Follow up Alkali Creek seven miles, to a beautiful round meadow; then turn north over a grassy divide until water is reached running north, or nearly so. Follow this water down to the east fork of Return (or Virginia) Creek, and continue down the south bank of this fork almost to its junction with the main creek. Cross now to the north side, and a short distance above, cross to the west side of the main Return Creek. Go over and around the point between this stream and its next tributary to the west, Spiller or Randall

Creek, and in one and one-half miles you reach Spiller Cañon. Go up this stream three-quarters of a mile, cross it, and take the trail westward marked with the government blaze. A mile of steep climbing brings you to a fine meadow; a half-nile further up is a lake, which you leave on your left. The trail is now plainly blazed,—and after passing to the right of another lake, it turns north, and within half a mile it begins to descend into Matterhorn or China Cañon. The floor is reached in one and one-half miles, and here Routes I and 2 separate.

Route I goes north almost to the head of Matterhorn Cañon: it turns then to the left through a comparatively low place, and goes down over a little glacier into Slide Cañon. To the right (north) rises the great Sawtooth Ridge, while to the south, and not in the main chain, lies what I have called Matterhorn Peak. Descending Slide Cañon (or Piute Cañon, as it is called by the United States Geological Survey) about three and one-half miles, you come to the "Great Slide," above which is a very small pool or lake. Two miles below the Slide, the trail turns up from Slide Cañon. Be sure to go down far enough-don't turn up too soon, as I did in 1895. Look close to find this place, for it is easy to miss. A mile up is a meadow, which you cross to the westward. Beyond it you cross two little cañons, a half-mile apart, which I have called the Twins. A mile further is Rock Island Lake. Pass to its upper end, and make for a gap three-quarters of a mile to the north. Pass through this gap, and you are on the east fork of Kerrick Cañon, at the headwaters of Rancheria Creek. Descend this east fork, cross the middle fork, which is much the largest, and go up the west fork to the main chain of the Sierra Nevada. Travel a little north of west, past a lake and along the divide, for half a mile, and then turn southwest into Thompson Cañon, and follow one of its tributaries down to the main stream. Descend the right bank of this stream five miles, passing by a big meadow, and a low place will be seen in the ridge to the right. Start into this, and follow for two or three miles southwest to a number of lakes. Turn here abruptly north, and in two miles a place will be found by which you may descend (west) into Stubblefield Cañon. This place is pretty difficult, but one can reach the creek-bottom with animals, if careful. Descend this stream on its western side for two and one-half or three miles-a very tedious stretch. A strip of timber will then be seen to the right, some 1000 feet above you, and the more noticeable because there is elsewhere scarcely any timber in Stubblefield Cañon or along its sides. The way out of the cañon leads up through this timber, and one must hunt out the way as best he can. It is marked here and there with rockpiles, but there is no regular trail. Some three miles to the southwest and west you reach a pass, from which you can see a lake

and meadow one and one-half miles to the westward. Pick your way down to this meadow. A mile west from this is a pretty large lake (Branigan Lake). Pass south of it, cross the outlet, and go a few hundred yards up Fall River (Jack Main's Cañon) and cross it to its west bank. The trail now follows Fall River, keeping always on the west side, crossing all the rocky points coming down to the stream, and traversing the meadows that lie between. Four lakes are passed, through two of which the river flows. Pass to the right of the first and of the fourth, the largest lake, and pass to the left of one of the other two-I cannot be sure which-on a narrow bank between it and the river. A mile below the last lake you reach the falls above Lake Vernon; the lake itself, however, is not visible from this point. Here turn sharp to the right, up a narrow gorge, and in one and one-half miles you come out on the ridge west of Lake Vernon. Following this ridge for three miles southward, you come to the trail from McGill's to Lake Vernon. From this point it is one and one-half miles southwest to the "Beehive," one and one-half miles further to a little pond or lake, and three and one-half miles further still, nearly west, to McGill's (Miguel's). From this last there is a good trail to Lake Eleanor, four miles distant. It should be noted that the trail is but scantily blazed in that portion of the route which lies between the Great Slide and Branigan Lake.

### 2. From Tuolumne Meadows to Hetch-Hetchy via Slide Canon.

This route coincides with Route 1, described above, until Matterhorn (or China) Cañon is reached. At that point turn down the cañon one and one-half miles, go up the west fork, keeping on its northern side for three miles, then cross and climb one and one-half miles to a pass to the left (southwest). Go through this, and then pick your way down between the rocks to a meadow and lake, two miles. Pass around the south side of the lake, turn up over smooth rocks, and work around the foot of a peak to the south of the trail (Regulation Peak) to a small stream. From this place there are two routes to Rodgers' Cañon. One is to follow up this stream past a very little lake, over the divide, and down by Rodgers' Lake to the large meadow at the head of Rodgers' Cañon, two and one-half miles. The other route passes around the foot of a peak south of the trail, very similar to Regulation Peak, but one and one-half miles west of it. A meadow and lake are reached to the west of this second peak. From this it is comparatively easy to pick one's way south to the large meadow at the head of Rodgers' Cañon, mentioned above. This meadow lies just south of this second peak, and may be known by its being clear of rocks at its upper end, but covered with large white granite boulders at its lower (southern) end. It is nearly a mile long.

The trail now descends the west side of Rodgers' Cañon for two or three miles, and then begins gradually to work up the cañon-side southwest, the objective being the point between Rodgers' Cañon and Piute or Slide Cañon. In four miles from the meadow you come out on this point, and can look both up and down the Grand Cañon of the Tuolumne, as well as down into Pate Valley, which lies at the mouth of Slide or Piute Creek.

The trail works around the point, turns north, and begins to descend into Slide Cañon. It is four miles down to the stream, and is pretty rough. Having reached the stream, follow it up (north) for half a mile, and you reach Pleasant Valley. Here the trail crosses the stream. As you descended into Slide Cañon, you will have noticed a low place in the ridge which divides Slide and Rancheria Creeks. This is called "The Sink," and to it the trail now works up for three miles. From this point on, the trail keeps down the ridge straight to Hetch-Hetchy, and is easy to follow.

Route 2 was much used by the troops in 1895, and was pretty well marked all the way, with the distinctive government blaze, which is a T. The most difficult place is in the neighborhood of Regulation Peak and the peak which lies just west of it. It is further to be observed that at low water one can cross Rancheria Creek two miles above Hetch-Hetchy, and go on to Tilltill Valley and Lake Vernon without descending into Hetch-Hetchy at all.

### 3. JACKASS MEADOWS TO TUOLUMNE MEADOWS.

At Jackass Meadows there are two cabins; the first of these, as you come from Wawona, lies just at the foot of Jackass Pass (500 yards from it). The trail to the Tuolumne Meadows starts directly from this cabin. It gradually winds north along the foot of the steeper slopes, and in two miles reaches a miner's cabin. A half-mile beyond this is another cabin, close upon the southern boundary of the Park. For the next three miles the trail climbs to the northwest, thus passing to the west of some rough country just north of the mines above mentioned. It then begins to descend northeast to the west fork of Granite Creek. A timbered knob will now be seen to the northeast, on a ridge between the west and east forks. The trail passes to the north of this knob, having previously crossed the main west fork, by a difficult ford. Just after leaving this creek the trail is pretty rough, but finally comes out at a low place on the ridge north or northwest of Timber Knob, as just stated. It now descends into and crosses a kind of valley through which flows a tributary of the east fork of

Granite Creek; and working gradually eastward over to the east fork, it follows this up two miles to a lake one-quarter of a mile in diameter, which I called Sadlier Lake. Just north of the outlet of this lake it unites with the trail from Little Jackass Meadows-see Route 4 below. The trail now swings away from the lake, but finally returns to the stream farther up, at a smaller lake, around which it circles to west and south, and then turns west toward Isberg's Pass. A half-mile before reaching the pass you strike north between two little lakes, and then turn west again. The pass lies on the main divide, one mile north-northeast from what I have called Triple Divide Peak. Turn sharply to the left from the pass, and begin to descend, gradually working down to two lakes, between which the trail passes in a northwesterly direction. Thence onward keep generally to the north, parallel to the stream on your left, the Merced Peak Fork of the Merced River, and at a distance of about a mile and a half from it. About eight miles further on you reach Merced Point, the point of the ridge between the Merced Peak Fork and the Mt. Lyell Fork. The view here is grand. Looking accross the basin to the north, it seems impossible to proceed; but it is not so. After one and one-half miles of steep descent to the Mt. Lyell Fork, you cross it, and then for two and one-half miles you pass along a narrow ledge which forms the way for the most remarkable trail I have ever seen in the Sierra Nevada. Following this ledge to the northwest for about five miles from the river-crossing, you reach a meadow. From this point it is two miles north before the descent to the Mt. McClure Fork begins, and two and a half miles further before that stream is reached, at its junction with a large tributary from the southeast. Follow the Mt. McClure Fork up to a number of meadows. Here there are two ways to get over to Tuolomne Pass-the pass into the Tuolumne basin. The longer, easier, and plainer, is to make a detour of eight or nine miles west, and then east again, around the point lying between the Mt. McClure Fork of the Merced and Fletcher Creek. The shorter, but more difficult, way is to start up a small stream thick set with willows, towards what appears to be a pass to the northeast. When within a few hundred yards of this False Pass, turn sharp to the left (west), and pick your way over bare granite rocks, where no one would suspect a trail, to a gap one mile west of the False Pass. Go through this, the real pass, and then down to the left of a little lake below. Cross the outlet at the point where it leaves the lake, and work down to Fletcher Creek. A mile north of Fletcher Creek brings you to Limerick Lake, and a mile east of the lake brings you to a broad, low gap, Tuolumne Pass. Descending northeast along the stream which heads in the pass, you come, after five miles' travel, to the Mt. Lyell Fork of the Tuolumne, at

a point not over three miles above Lambert's Soda Springs. Any one wishing to make this trip from the Tuolumne Meadows southward, has only to follow up the first large stream coming into the Lyell Fork from the southwest. Should he not find the blazed trail at the first, he will be sure to do so soon after starting up this creek—Rafferty Creek. He should also remember to take the right-hand (western) branch at the forks some three miles from the meadows, for the left-hand branch leads up to the False Pass described above, which is impassable.

### 4. FROM LITTLE JACKASS MEADOWS TO THE TUOLUMNE.

This route leaves the old Mammoth City trail at Little Jackass, or Granite Meadows, striking north across and up Little Granite Creek, and over the ridge to the north, and finally joins Route 3 at Sadlier Lake. It is a better trail than that, and is well blazed. It may be well to remember that Granite Creek is sometimes called Rock Creek.

### N. F. McClure,

1st Lieut. 5th Cavalry.

#### THE NEW MAP OF THE SOUTHERN SIERRA REGION.

The new map noticed in the last number of the Bulletin is at last ready for distribution. It is a combination and a thorough revision of the two maps previously published by the Club, together with separate plans of the Yosemite and the Hetch-Hetchy Valleys on a scale larger than that of the general map. It will be issued to members, folded in covers suitable for pocket-carriage; but those who prefer to have it cut and backed with muslin, or backed and mounted on rollers, may procure it in either shape by exchanging their copies and paying the difference in cost. This matter, together with the general arrangement for the sale of the map, is in the hands of Mr. T. S. Solomons, 508 California Street, San Francisco.

The revision has been made by J. N. LeConte, assisted by T. S. Solomons. It has embodied not merely all the latest published information—such as that contained in the last sheets of the United States Geological Survey and the new county maps of Fresno and Tulare—but a good deal of new topography of the unsurveyed region of the High Sierra, the results of the field work of the revisers themselves as well as of Lieutenant McClure, Mr. Winchell, and others. Neither completeness nor refined accuracy can be claimed for this work; but it is meant to be as complete and as accurate as our present knowledge will permit. The special aim of the revisers has been to furnish information, clear

and trustworthy as far as it goes, for the guidance of travelers in that unfrequented region. No routes or trails, therefore, have been laid down save such as are known, from actual observation, to exist substantially as indicated. The new names which appear upon this map are for the most part, as we learn, names found in actual use among the mountaineers; the exceptions being a little group of peaks at the head of the middle branch of the South Fork of the San Joaquin, named by Mr. Solomons, and a few points

elsewhere named by other explorers.

The revisers take this opportunity to express their thanks on behalf of the Club to Mr. L. A. Winchell, of Fresno, who, just prior to the final draughting of the map, contributed much valuable information, topographical and other, concerning several localities included in the map. And the whole of his contribution, it should be remarked, had to be communicated through the tedious and painful medium of correspondence. It may not be out of place to add that Mr. Winchell's information is the result of some twenty-five summers' exploration, photographing, and sketching in the Alpine portion of the Sierra, covering the entire stretch from Mt. Whitney northward to the Minarets east of the Yosemite. His acquaintance with the King's River Basin in particular is probably unexampled.

# WANTED-DATA FOR A MAP OF THE KERN AND KING'S RIVER DIVIDE,

The issue of any map such as ours, is, of course, but the first step towards its revision-is but an appeal to the public for information which shall fill out its gaps and correct its errors. The larger features of it, the location of its great peaks and the courses of its easily-reached streams, rest upon genuine surveys, and may be taken as fairly accurate. But the infinite detail of ridge and slope, and the ramification of stream systems are either as yet unindicated, or are very largely matters of conjecture. None can be more fully aware than the compilers of the map how meagre and unsatisfactory in detail was much of the material they were obliged to use. They have made us the very best map they could; but it is in the power of every member of the Club who traverses those regions to make it better. Let us take a single case in point. It is a matter of no little importance that we should have without delay a good preliminary sketch of the drainage-systems in the neighborhood of the Kern and King's River Divide, of the streams and cañons that furrow the slopes of Mts. Brewer, Tyndall, Williamson, Barnard and Whitney and the ridges that stretch between. Such a map would be invaluable to increasing numbers of people who would visit Mt. Whitney by that route. But

the materials for such a map do not exist. We soon might have them, however, if every party that summers in that neighborhood were willing to devote a little time and pains to securing them; if each party were to explore but one considerable stream such as the upper reaches of the Tyndall Creek, or one of the arms of Bubb's Creek; getting down in a note-book the compass-bearings of at least two known peaks (or other ascertained stations) from each of its principal forks, turnings, and lakes, together with sketches of its general course between these points, and of its tributaries up to their sources, and would then forward these notes to Mr. J. N. Le Conte, our cartographer. Such observations require no apparatus other than the compass with scale and sights which many mountaineers already carry. It might be well, of course, to have some previous understanding between different parties so as to avoid duplication of work. But no one need wait on that account, where all is new ground. This season and the next should suffice to complete it. Shall not the thing be done?

### SIERRA CLUB REGISTERS.

In 1894, registers and suitable boxes were prepared for members to deposit on the peaks of the Sierra Nevada. During the summer of that year, registers were placed upon the summits of Mt. Dana, Mt. Lyell, and Mt. Conness, by Mr. E. C. Bonner; upon Mt. Whitney, by Mr. Corbett; above the Muir Gorge, in the Tuolumne Cafion, by Mr. Price; and upon Mt. Tallac.

During the summer of 1895, Messrs. Le Conte and Corbett placed a register upon Mt. Brewer; Messrs. Gregory and Rixford placed the register box (but not the register), upon Mt. Tyndall; Messrs. Taylor and Libby placed one upon Squaw Peak, near Lake Tahoe; and Messrs. Solomons and Bonner placed one upon Mt. Goddard, and one upon Tehipite Dome, on the Middle Fork of the King's River.

The register consists of a number of sheets of strong paper, on which is printed the following, the blanks to be filled in at the time of its deposit:

[SEAL.] REGISTER BOX NO.....OF THE SIERRA CLUB.

Deposited on the summit of \_\_\_\_\_\_ the \_\_\_\_\_ day of \_\_\_\_\_\_ 189 \_\_\_\_

It is particularly requested that no names be registered except of those actually making the ascent. The altitude of this summit is ......

Panorama is .....

Please show your appreciation of the Sierra Club and of its purposes by using care in replacing this register in the box, and by restoring the box to the spot whence taken.

The Sierra Club (address Room 51A, Academy of Sciences Bulding, San Francisco) will be obliged for any communication concerning the condition of this box, as well as for any incidents of the ascent too lengthy to be recorded.

By the Directors,

JOHN MUIR,

President.

Experiment has shown that the register box is too large, and of material lacking in durability. This season improved ones will

be ready for such members as may apply for them.

To those interested, the following list of peaks upon which there are no registers may be useful: Mt. Ritter, Mt. Clark, Mt. Hoffmann, Cathedral Peak, Black Peak, Red State Peak, Mt. Hilgard, Seven Gables, Mt. Humphreys, Mt. Emerson, Mt. Darwin, Mt. Wallace, North Palisade, Woodworth Mountain, Mt. Gardner, Mt. King, Mt. Williamson, Mt. Le Conte, Mt. Barnard. and University Peak.

ELLIOTT MCALLISTER,

Secretary of the Sierra Club.

### THE APPALACHIAN MOUNTAIN CLUB.

The latest number of APPALACHIA (VIII, I), the flourishing publication of the Appalachian Mountain Club of Boston, is one of more than ordinary interest. As the result of a club excursion to the Canadian Rockies and the Selkirk Range, we are presented with interesting and well-illustrated accounts of ascents of several prominent peaks in those regions. The illustrations give an impression of rugged and and picturesque scenery, resembling much of our High Sierra country. We notice also, in the same number, an interesting article on Mt. Goddard and vicinity, from the pen of our enthusiastic and energetic Sierra Club member. Mr. T. S. Solomons. An article on Avalanche Basin, in the Montana Rockies, by Dr. L. B. Sperry, with some fine photographs, makes one long to see that beautiful region.

The Annual Report of the Appalachian Club presents some interesting data on the condition of the club and its work. Its membership is about 675, bringing in an income of about \$2000 for the year 1895. This income was swelled by admission fees, sale of maps and publications, and interest on reserve funds, to about \$2700.

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During the twenty years of the club's existence, it has expended upon its publications \$13,573; for topographical work, \$1410; for printing, stationery, and postage, \$6635; for "Improvements and Explorations," \$3018; for "Natural History and Art," \$1373; for expenses of meetings, \$1449; for library, \$1226; and for club-room, \$5480. Its total receipts have been for the twenty years \$43,132.43. and its total expenditures \$42,381.72, of which latter sum \$2223.19 went to reserve fund, and \$3707.95 to the "permanent fund." Surely a creditable showing of its life and activity.

I. M. STILLMAN.

#### THE SCOTTISH MOUNTAINEBRING CLUB.

Numbers of the Scottish Mountaineering Club Journal recently received show a remarkable activity and enthusiasm in all things pertaining to mountain climbing. To the American reader, however,-with his idolatry of mere bigness, his restlessness to be elsewhere, and his hunger for whatever lies beyond his grasp-the most remarkable thing in these papers is the loyal contentment and pride with which these Scots accept what nature has provided for them in the way of mountains, and proceed to make the most of it. And very much do they make of it too. Not one of their peaks is as high as our Mt. Hamilton. Nevertheless, by eschewing all natural and easy paths of ascent, by selecting only the difficult or apparently impossible, by climbing in storm or snow or with a glair of ice underfoot, they succeed in making veritable Matterhorns out of heights no greater, nor naturally more hazardous, as it would seem, than Tamalpais or Diablo. Mountain sickness and the peculiar perils of glacier-work are apparently the only things in mountaineering experience which cannot, somehow, be had in Scotland. Nay, more, when all other resources fail, they succeed in getting no end of excitement and bruises out of climbing boulders no more than fifteen or eighteen feet high. Some of these boulders are actually famous, and are deemed worthy not only of having the various ascents of them in general recorded, but the particular angle or side by which each ascent was made. From one point of view all this might seem odd or even trivial. But, seen in a truer light, what have we here but an unlooked-for example of the very qualities which have made Scotchmen what they are wherever we find them?—the self-reliant spirit that waits for no favors of fortune, the genuine disdain of ease, and the love of home and country so loyal that it needs no illusion to gild for it the shrine toward which it worships.

C. B. BRADLEY.

## REPORT OF TREASURER OF SIERRA CLUB.

### FROM MAY 15, 1895, TO APRIL 30, 1896.

#### RECEIPTS.

Cash on hand May 15, 1895	\$504	08
Total cash received from Secretary	543	26
Total	\$1,047	34
		-
EXPENDITURES.		
Paid out for printing	343	15
Paid out for clerk hire	87	00
Paid out for rent	125	00
Paid out for janitor	11	00
Paid out for postage	60	90
Paid out for stationery	2	95
Paid out for typewriting	11	49
Paid out for photographic plates, album, etc	79	94
Paid out for maps	54	25
Paid out for incidentals	29	-
	\$805	16
Cash on hand	242	18
Total	\$1,047	34

WARREN OLNEY.

Treasurer.

### SECRETARY'S REPORT.

### FROM MAY 15, 1895, TO APRIL 30, 1896.

The circulars have kept the members informed of what has been accomplished by the Club.

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The membership, notwithstanding several resignations, has increased, and the publications have been earning for the Club a substantial reputation, if one may judge by the occasional requests for back numbers from well-known European organizations.

The total collected for dues from May 15, 1895, to April 30, 1896, and paid to the Treasurer was \$543.26.

The following are directors and officers elected for the ensuing year at the annual election on April 25, 1896:

MR.	. John	Mu	IR .														President
MR.	. WARR	EN	OL	NE	V		a					1	Fi	rst	V	ice	-President
PRO	F. JOSE	tPH.	LE	Co	N	TE			9	0	2	Sec	con	id	V	ice	-President
PRO	p. J. H	. Si	ENG	ER				C	or	. 5	ie	re	:ta	ry	an	ıd	Treasurer
MR.	. ELLIO	TT	Mc	AL	LI	STI	ER										Secretary

Prof. George Davidson, Prof. C. B. Bradley, Prof. J. M. Stillman, Pres. David Starr Jordan,

and the following committees have been appointed:

### Auditing Committee.

DIRECTORS STILLMAN, DAVIDSON, AND MCALLISTER.

# Publications and Communications. PRESIDENT JOHN MUIR, Chairman.

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Pres. David Starr Jordan, Prof. George Davidson, Mr. H. L. Macneil, Prof. W. R. Dudley, Mr. Mark B. Kerr.

ELLIOTT MCALLISTER, Secretary.

## MEMBERSHIP OF SIERRA CLUB,

JUNE, 1896.

Philip S. Abbot, Wm. Alvord, Wm. D. Armes. T. P. Andrews. Chas. B. Atkinson, Wm. Babcock, Chas. A. Bailey, L. de F. Bartlett. Hon. Wm. H. Beatty, H. H. Behr, Wm. R. Bentley, E. T. Blake, Max. Blum, John H. Boalt, Franklin Booth. Archie Borland. Clifford Baxter. Prof. C. B. Bradley, Prof. John C. Branner Elisha Brooks, Walter E. Bryant, Dr. G. J. Bucknall, Dr. F. von Bullow, Dr. R. E. Bunker, Edw. Bosqui, Jas. S. Bunnell. Rev. W. A. Brewer,

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H. P. Dyer, Gorham Dana. E. A. Denicke. Prof. W. R. Dudley, Robt. McF. Doble. D. C. Demarest, H. H. Eddy. Prof. Geo. C. Edwards. J. H. Eckley, Prof. Isaac Flagg, D. J. Folev. A. C. Freeman. Henry K. Field, . G. P. Fitzgerald, Mrs. Clara Foltz. Selwyn C. Freer, Robt. Fulton. Miss Helen Gompertz, Prof. E. L. Greene, Warren Gregory. Prof. James O. Griffin, A. F. Gunn. Geo. Gibbs. E. P. Grav. John R. Glascock. Wm. Hammond Hall. A. S. Halladie, Ch. G. Harker. Dr. H. W. Harkness, Hon. Ralph C. Harrison, J. Hasbrouck. Prof. M. W. Haskell, Edgar Haymond, W. H. Henry,

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Prof. Fernando Sanford, Prof. J. H. Senger, Chas. H. Shinn, Saml. Shortridge, N. T. Smith, W. C. Smith, Theo. S. Solomons. Adolph Sutro, Chas. J. Swift. E. A. Schlaet. J. B. Scott. Miss E. R. Seidmore, Prof. J. M. Stillman, James Spires, Jas. L. Sperry, Prof. Fre'k Slate, A. W. Smith, F. P. Stone, A. G. Sanborn. Wm. Stanton. John Swett. F. W. Stephenson, Edward R. Taylor, I. E. Thayer, Dr. O. V. Thayer,

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# HONORARY MEMBERS, 1896.

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Prof. J. D. Whitney,
Edward Whymper, Esq.

Gilbert Tompkins,

H. W. Turner,

<sup>\*</sup> Deceased.



## PUBLICATIONS OF THE SIERRA CLUB

Number 13

# SIERRA CLUB BULLETIN

Vol. I

No. 8



MAY, 1896

SAN FRANCISCO, CAL. 1896

# SIERRA CLUB BULLETIN

MAY, 1896

Vol. I

No. 8

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A Trip About the Headwaters of the Middle and South Forks of King's River; with Illustrations
Bolton Coit Brown
Knapsack Tours in the Sierra
The Ascent of Mt. Le Conte; with Illustrations
A. W. de la Cour Carrol
The Diamond Hitch; with Illustrations
J. N. Le Conte
NOTES AND CORRESPONDENCE: New Routes in the Yosemite

NOTES AND CORRESPONDENCE: New Routes in the Yosemite National Park; The New Map of the Sierra Region; Wanted—Data for a Map of the Kern and King's River Divide; Sierra Club Registers; The Appalachian Mountain Club; The Scottish Mountaineering Club; Treasurer's Report; Secretary's Report.

All communications intended for publication by the SIERRA CLUB, and all correspondence concerning such publication, should be addressed to the Editor, C. B. Bradley, Berkeley, California.

Correspondence concerning the distribution and sale of the publications of the Club generally, should be addressed to the Secretary of the Sierra Club, Academy of Sciences Building, San Francisco, California.

# PUBLICATIONS OF THE SIERRA CLUB

- No. 1.-Articles of Association, By-Laws, and List of Members.
- Nos. 4 and 5.—Maps of Portions of the Sierra Nevada adjacent to the Yosemite and to King's River, 1893.
- No. 8.—Table of Elevations within the Pacific Coast, 1895, by Mark B. Kerr and R. H. Chapman. Price, 25 cents
- No. 12.—Map of the Sierra Region, May, 1896. Price, \$1.50
  To be had of Theodore S. Solomons, 508 California Street, San Francisco, California.
- Nos. 2, 3, 6, 7, 9, 10, 11, 13, together forming Volume I of the Sierra Club Bulletin. For Table of Contents see the last pages within.

  Each number, 25 cents

Copies of the above publications may be had on application to the Secretary, Academy of Sciences Building, San Francisco, Cal.

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### For the Year 1896-97

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